



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

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OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

February 10, 2015

Ms. Sandra Stevens, Petersburg Deputy District Ranger
USDA Forest Service
Petersburg Ranger District
12 North Nordic Drive
P.O. Box 1328
Petersburg, Alaska 99833-1328

Re: Kake to Petersburg Transmission Line Intertie Project Draft Environmental Impact Statement
EPA Region 10 Project Number: 14-0046-AFS

Dear Ms. Stevens:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement for the Kake to Petersburg Transmission Line Intertie Project. We are submitting comments in accordance with our responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act. Thank you for the opportunity to offer comment on the proposed action.

The Southeast Alaska Power Agency is proposing to build a new electric transmission line to connect the isolated, and currently diesel-generated, electric system serving the City of Kake with their electric network at Petersburg. Per their responsibility under the Federal Land Policy and Management Act to respond to an application for right-of-way, the Forest Service must decide whether to issue SEAPA, a special use authorization for the construction, operation, and maintenance of the transmission line across National Forest System lands.

In addition to the No Action Alternative, the Forest Service proposes three action alternatives: **Alternative 2**, the Preferred Alternative, and **Alternative 3** would both follow the Northern Route, which traverses parts of three Inventoried Roadless Areas. Following the Wrangell Narrows/Frederick Sound marine crossing north of Petersburg, the Northern Route continues north along the no-road route east shoreline of Kupreanof Island to the mouth of Twelve Mile Creek, turns west along the south side of Portage Bay and continues overland through the North Kupreanof IRA to Kake. The Northern Route is approximately 60 miles long and follows existing roads for 59% of its overhead length. Alternatives 2 and 3 differ only in their transmission line crossing of Wrangell Narrows/Frederick Sound: Alternative 2 would cross via a horizontal directional bore beneath the channel for 1.2 miles; Alternative 3 would cross from further south and east via a 3.1 mile-long submarine cable. **Alternative 4**, the Center-South Route, is 51.9 miles long. It would begin 8 miles south of Petersburg and proceed west, crossing Wrangell Narrows and Duncan Canal via submarine cable (approximately 0.6 and 0.9 mile in length, respectively) and continue northwest to Kake following existing roads for 73% of the overhead length, and crossing one IRA (South Kupreanof).

The EPA has concerns with the identification of Alternative 2 (Northern Route) as the Preferred Alternative. We believe that Alternative 4, the Center-South Route, would meet the purpose and need with far fewer impacts to all resources of concern. We are rating the Draft EIS as EC-2, Environmental Concerns, Insufficient Information. An explanation of the EPA rating system is enclosed for your information. Our main concerns and information needs include the following:

- The proposed project would require a Clean Water Act Section 404 permit. Per the 404(b)(1) Guidelines, only the Least Environmentally Damaging Alternative (LEDPA) may be authorized for a Section 404 permit. The Draft EIS clearly indicates that the Preferred Alternative 2 (Northern Route) would have substantially greater impacts and risks than the Center-South Route (Alternative 4) for all of the following aquatic, terrestrial, and wildlife resources:
 - Acres of wetlands disturbance, including forested wetlands, moss muskegs, and forested/emergent sedge complex;
 - Number of Class 1 stream crossings;
 - Acres of Productive Old Growth (POG) forest loss, including high-volume POG, Large-Tree POG, and POG within Beach Fringe and Riparian Buffers;
 - Number of known potential impacts to rare plants;
 - Acres of disturbance and risk of spread of invasive plants;
 - Acres of disturbance and miles within unroaded/Inventoried Roadless Areas;
 - Acres of new detrimental soil disturbance;
 - Acres of deep snow winter range loss for deer;
 - Impacts to scenic integrity and recreation;
 - Total length and miles on NFS lands; and
 - Number of structures to be constructed.
- We understand that both the Northern and Center-South Routes are being coordinated with proposed roadway alternatives under the Kake Access Project. The potential environmental impacts of the road project would be substantially greater than those described in this Draft EIS for the transmission intertie, yet the decision on this project is expected to influence the other. This reasonably foreseeable potential outcome should be discussed, insofar as possible, to inform decision making for the Kake Intertie Project.
- The climate change analysis should compare the greenhouse gas emissions from diesel generated power vs. power from the SEAPA network, and should address any reasonably foreseeable growth inducing effects, such as commercial or other development, which would potentially result from providing relatively low-cost electricity.

Our detailed comments, which are enclosed, provide further explanation of these issues. They also address impacts concerning vegetation, noise and vibration from horizontal boring, and potential effects from above-ground transmission and structural wires. We appreciate all of the analysis, information, and effort to prepare the Draft EIS. If you have questions or would like to discuss our comments, please contact me at (206) 553-1601 or via electronic mail at reichgott.christine@epa.gov, or contact Elaine Somers of my staff at (206) 553-2966 or via electronic mail at somers.elaine@epa.gov.

Sincerely,

A handwritten signature in blue ink, reading "Christine B. Reichgott". The signature is fluid and cursive, with the first name "Christine" and last name "Reichgott" clearly legible.

Christine B. Reichgott, Manager
Environmental Review and Sediment Management Unit

Enclosure:

1. Detailed Comments on the Kake Transmission Line Intertie Project Draft EIS

**U.S. Environmental Protection Agency
Detailed Comments on the
Kake Transmission Line Intertie Project Draft EIS**

Aquatic resources impacts, selection of the least environmentally damaging practicable alternative, and mitigation for unavoidable impacts

The proposed action would require a Clean Water Act Section 404 permit¹ for the discharge of dredged and fill material into waters of the United States, including wetlands. Pursuant to the Clean Water Act Section 404(b)(1) Guidelines (Guidelines), which establish the conditions under which a CWA section 404 permit may be issued, only the least environmentally damaging practicable alternative (LEDPA) may be permitted².

The Draft EIS clearly examines the environmental impact of the proposed action (Alternative 2) as well as two other action alternatives (Alternatives 3 and 4) and a No Action Alternative. The DEIS provides Table S-1, a helpful Summary Comparison of impacts for the No Action and the three action alternatives, and detailed impact comparisons in Chapter 3, Environment and Effects. The wetlands section in Chapter 3 displays the estimated wetland impacts of Alternatives 2, 3, and 4, and clearly indicates that Alternative 2, the Preferred Alternative, would impact more acres of wetlands than the other action alternatives, including the largest acreage impact to forested wetlands. Alternative 2 would impact 502 acres of wetlands, while Alternative 3 would impact 491 acres of wetlands and Alternative 4 would impact a total of 293 acres of wetlands. Further, Alternative 4 has lower impacts than Alternatives 2 and 3 in most of the categories included on the summary comparison of alternatives table. Per the Guidelines, only the LEDPA may be authorized for a Section 404 permit.

Recommendation: Alternative 4 appears to meet the purpose and need with far fewer impacts to aquatic, terrestrial, and wildlife resources. We recommend adopting Alternative 4 as the Preferred Alternative.

Mitigation. Once all appropriate and practicable measures have been taken to avoid and minimize potential harm to the aquatic ecosystem, the mitigation sequence requires an evaluation of compensation be provided to offset the remaining, unavoidable project impacts. If compensation is determined to be appropriate (i.e., commensurate with the impacts) and practicable, the implementation of the compensation must be in accordance with regulations jointly developed by the Corps and EPA, "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule" (Final Rule; 40 CFR Section 230). The Final Rule was codified as part of the Guidelines, and compliance is necessary for permit

¹ DEIS, p. 1-17

² (40 CFR part 230.10(a)). The Guidelines contain four fundamental restrictions on discharge, and no section 404 permit may be issued unless compliance with the Guidelines has been demonstrated. A proposed discharge does not comply with the Guidelines if: (1) there is a practicable alternative to the proposed discharge that would result in less impact to the aquatic environment; (2) the proposed discharge would cause or contribute to the violation of water quality or a toxic effluent standard, jeopardize a threatened or endangered species, or impact a marine sanctuary; (3) the proposed discharge would result in significant degradation of the aquatic ecosystem; or (4) the proposed discharge would not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem. In addition, a proposed discharge would be considered non-compliant with the Guidelines if there is not sufficient information to make a reasonable judgment as to whether the proposed discharge would comply. In all cases, it is the responsibility of the permit applicant to demonstrate compliance with the Guidelines.

issuance. Pursuant to 40 CFR Section 230.93(f)(1), the amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions. This same subsection indicates that functional or condition assessments should be used to quantify functional loss from the proposed project and determine how much compensatory mitigation is required.

The wetlands chapter of the DEIS states that Best Management Practices that are consistent with State Forest Practices and other State Water Quality Regulations would be used to mitigate the impacts of the land-disturbing activities. The EPA believes that a functional assessment of the aquatic resources that would be impacted should be conducted to determine the appropriate compensatory mitigation to offset the loss of the impacted aquatic resources. For freshwater wetlands, the EPA recommends the applicant use the Wetland Ecosystem Services Protocol for Southeast Alaska (WESPAK-SE), which was developed in 2012 specifically to assess the functions and values of freshwater wetlands in Southeast Alaska. This methodology uses site-specific data to quantify the performance of eighteen distinct functions and the societal values associated with performance of those functions.

Recommendation: Ensure that all measures to avoid and minimize potential harm to aquatic ecosystems would be implemented and mitigate any unavoidable impacts in accord with the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (40 CFR, Section 230).

Relationship with Kake Access Project and Tongass Forest Plan

The DEIS states (p. 3-5) that it is not currently possible to identify what potential road corridor, if any, would be built for the Kake Access Project. The DEIS also states that no new roads would be built under any of the action alternatives³ for the proposed transmission line intertie. This would seem protective with respect to project impacts to roadless areas and related resources; however, the relationship of the proposed Kake Transmission Line Intertie to the Kake Access Project⁴ and provisions of the 2008 Tongass Forest Plan⁵ may have a significant bearing on the actual potential for a new roadway to be built along the selected intertie corridor. The DEIS analysis of impacts clearly indicates that the Preferred Alternative 2 would have the highest level of impacts for most, if not all, affected resources (see LEDPA comments above), yet all proposed action alternatives would meet the project purpose and need. From an environmental perspective, there appears to be no basis or rationale for selecting Alternative 2 as the Preferred Alternative.

Because the transmission intertie route selection is being coordinated with and has the potential to influence the Kake Access decision, the NEPA analysis should acknowledge and discuss in greater detail the reasonably foreseeable potential impacts that would be associated with the Kake Access Project. These potential direct, indirect, and cumulative impacts are important to inform decision making for the transmission intertie, particularly the nature, extent, and severity of effects that could occur within roadless areas, to sensitive terrestrial, freshwater, and marine habitats and species, and to the overall lifestyle of project area residents.

³ DEIS, Abstract. Construction access in unroaded areas would be via temporary shovel trails, matting panels, and helicopter.

⁴ DEIS, p. 1-8: Both projects evaluate the potential use of the Northern Route and the Center-South Route.

⁵ DEIS, p. 1-8: The Northern Route is identified in the 2008 Tongass Forest Plan as a State Road Corridor and much of the Center-South Route is identified as an Existing State Road Corridor.

Recommendation: In the Final EIS, acknowledge and discuss the nature, extent, and intensity of impacts that would potentially occur if the Northern Route or the Center-South Route are also used for the Kake Access Project. If Alternative 2 remains the Preferred Intertie Alternative, clearly state the rationale for its selection.

Vegetation impacts

The DEIS indicates (p. 3-4) that 29.7 acres of planned timber harvest in the project area coincide with the disturbance footprint for Alternative 4; only 2.7 acres coincide for Alternatives 2 and 3. An additional way to minimize project-related impacts would be to choose a route that would experience disturbance regardless of the proposed project vs. one that would not. Also, while road densities are low in all analysis area sub-watersheds, the highest occurring densities are within sub-watersheds which would be affected by Alternative 4 (Mitchell Slough and Outlet Hamilton Creek). Both of these factors would support selection of Alternative 4 rather than Alternative 2 or 3.

Recommendation: Factor pre-existing and planned disturbance into the route selection to minimize disturbance to pristine or relatively undisturbed areas.

The DEIS states (p. 2-17) that timber cleared in a Non-Development Land Use Designation and used would not count toward the Allowable Sale Quantity (ASQ). For proposed projects such as this, it would serve as a means to mitigate trees lost to Right-of-Way, if all trees removed for ROW clearing were counted toward the ASQ.

Recommendation: In the Final EIS, discuss in the mitigation commitments whether it is feasible to reduce logging in other areas of the Forest to offset losses incurred when proposed projects would result in the unavoidable removal of marketable timber from Non-Development LUDs.

We support vegetation clearing guidelines for the ROW that would reduce or minimize clearing of vegetation. This would reduce opportunity for invasive species and protect habitat to the extent possible. We support exceptions to the general clearing guidelines that would conserve trees and native vegetation, such as those discussed on p. 2-15 of the DEIS. For example, trees growing in the V-notches between ridges should be left standing in the lower valleys of rugged terrain where the transmission line spans from ridge to ridge. We expect these guidelines could often be applied to riparian areas to avoid impacts. If no stream crossings are spanned, an estimated 271 acres, 253 acres, and 64 acres of RMA buffers would require removal under Alternatives 2, 3, and 4 respectively.

Recommendation: Apply these clearing guidelines to environmentally sensitive areas as well, including, but not necessarily limited to, riparian areas, wherever possible.

Noise and vibration effects

The DEIS⁶ states that directional boring to establish a cable crossing in Wrangell Narrows (Preferred Alternative) may cause disturbance to marine biota due to vibrations and noise from drilling operations. This is a concern because Wrangell Narrows has high concentrations of seabirds and waterfowl and overwintering populations of Vancouver Canada geese⁷ as well as an array of benthic, pelagic, and

⁶ DEIS, p. 3-59

⁷ DEIS, p. 3-59

nearshore marine life, including productive kelp beds⁸. The DEIS provides no information about the duration or the severity of the noise and vibration effects from directional boring. It is unclear whether the impacts from a directionally bored cable crossing would potentially be less than from a submarine cable or why it is preferred.

Recommendation: In the Final EIS, disclose the timing, duration, and severity of noise and vibration effects from the directional boring operations, why it is the approach used in the Preferred Alternative, and whether or not this approach would be applicable to the other action alternatives.

Structural effects

The DEIS states (p. 2-10) that non-reflective wire would be used for the overland sections of the transmission line to reduce line visibility. However, low visibility wires may pose a danger to birds and other wildlife.

Recommendation: Discuss the potential impacts of low visibility wires to wildlife and whether the guy wires on the angle structures and dead-end structures would pose similar problems. Include mitigation where appropriate.

Climate change

We appreciate the climate change discussion in the Draft EIS, which provides an estimate of tons per acre of average carbon density for managed and unmanaged forests in the Tongass National Forest, and how each action alternative is expected to affect carbon sequestration. We note that the Draft EIS offers information on the carbon density on the Tongass National Forest and how that compares to worldwide forest carbon stock and total global carbon stocks. Consistent with the recent draft Council on Environmental Quality guidance on NEPA and climate change, we do not believe this is an appropriate approach for considering proposal-level greenhouse gas impacts.

Recommendation: In the Final EIS, compare the No Action and the proposed action alternatives with respect to greenhouse gas emissions from diesel generated power vs. power from the SEAPA network.

The Draft EIS states (p. 1-6) that Kake commercial customers are not subsidized for the cost of electricity, and that the "availability of reliable low-cost power strongly influences decisions to locate new commercial and industrial developments in Southeast Alaska." The Draft EIS further states that costly electricity is not conducive to economic growth and may in fact impede economic development in Kake.

Recommendation: We recommend that the Final EIS address reasonably foreseeable growth inducing effects such as commercial or other development that would potentially result from providing relatively low-cost electricity.

⁸ DEIS, p. 3-61